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NOTICE OF ALLOWANCE AND FEE(S) DUE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

HOUSTON ELISEEVA LLP 4 MILITIA DRIVE SUITE 4

LEXINGTON, MA 02421

25263

EXAMINER
CHANG, AUDREY Y

ART UNIT PAPER NUMBER

O DATE MAILED: 02/21/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/743 238	12/22/2003	Paul Mattackal Verghese	0005 11201151	6972	

TITLE OF INVENTION: DUAL MEMBRANE SINGLE CAVITY FABRY PEROT MEMS FILTER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$300	\$0	\$1020	05/21/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

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CURRENT CORRESPONDE	ENCE ADDRESS (Note: Use Blo	ock 1 for any char	nge of address)	· ·	Fee(s) Transmittal. This s. Each additional	certifi paper,	can only be used for cate cannot be used for such as an assignmenting or transmission.	domestic mailings of the or any other accompanying at or formal drawing, must
25263 7590 02/21/2008 HOUSTON ELISEEVA LLP 4 MILITIA DRIVE SUITE 4						Cert	ificate	of Mailing or Transn	deposited with the United t class mail in an envelope above, or being facsimile te indicated below.
LEXINGTON, N				•			(Depositor's name)		
									(Signature)
-									(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR			ATTORNEY DOCKET NO. CONFIRMATION NO.		
10/743,238	12/22/2003			Paul Mattackal Verg	hese		0	005.1120US1	6972
TITLE OF INVENTION	: DUAL MEMBRANE S	SINGLE CA	VITY FABR	Y PEROT MEMS FI	LTER		•		
APPLN. TYPE	SMALL ENTITY	ISSUE FI	EE DUE	PUBLICATION FEE I	DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$7	20	\$300		\$0	\$0 \$1020		05/21/2008
EXAM	INER	ART (UNIT	CLASS-SUBCLASS	s				
CHANG, A	UDREY Y	28	72	359-578000					
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. The Address indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been fil recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been fill the patent of the patent attorneys or agents or agent								ocument has been filed for	
Please check the appropr	riate assignee category or	categories (v	will not be pr	inted on the patent):	<u></u>	Individual Co	orporati	on or other private gro	oup entity Government
4a. The following fee(s) lssue Fee Publication Fee (N Advance Order -		☐ A check is enclo ☐ Payment by cred ☐ The Director is h	sed. lit card ereby	i. Form PTO-2038	is atta	equired fee(s), any de			
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NOTE: The Issue Fee an interest as shown by the	nd Publication Fee (if req records of the United Sta	uired) will no tes Patent an	ot be accepte d Trademark	d from anyone other to Office.	han th	ne applicant; a regi	stered a	ittomey or agent; or th	e assignee or other party in
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Typed or printed name						Registration N	lo		
This collection of inform an application. Confider submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 22:	ntiality is governed by 35 application form to the ions for reducing this but irginia 22313-1450. DC	CFR 1.311. T U.S.C. 122 USPTO. Ti rden, should ONOT SENI	he information and 37 CFR ime will vary be sent to the D FEES OR	on is required to obtai 1.14. This collection depending upon the e Chief Information (COMPLETED FORM	n or re is esti indiv Office AS TO	etain a benefit by t imated to take 12 r idual case. Any co r, U.S. Patent and THIS ADDRESS	he publ minutes mment Tradem S. SENI	ic which is to file (and to complete, includin s on the amount of tir nark Office, U.S. Depa of TO: Commissioner	by the USPTO to process g gathering, preparing, and ne you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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25263 7590 02/21/2008			EXAM	EXAMINER				
HOUSTON EI	ISEEVA	LLP		CHANG, A	CHANG, AUDREY Y			
4 MILITIA DRIVE SUITE 4 LEXINGTON, MA 02421				ART UNIT	PAPER NUMBER			
				2872 DATE MAILED: 02/21/200	2872 DATE MAILED: 02/21/2008			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 23 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 23 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)						
	10/743,238	VERGHESE, PAUL MATTACKAL						
Notice of Allowability	Examiner	Art Unit	٠					
	Audrey Y. Chang	2872						
The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included nerewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.								
1. X This communication is responsive to Appeal Brief filed November 21, 2007.								
2. ☑ The allowed claim(s) is/are <u>1-2, 4-11, 14 and 17 renumbered as 1-12</u> .								
 Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). 	been received. been received in Application No		tion from the					
* Certified copies not received:								
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.								
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 			OTICE OF					
5. CORRECTED DRAWINGS (as "replacement sheets") mus	st be submitted.	•						
(a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached								
1) hereto or 2) to Paper No./Mail Date								
(b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date								
ldentifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).								
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.								
Attachment(s)								
1. Notice of References Cited (PTO-892)	5. Notice of Informal Patent Application							
2. Notice of Draftperson's Patent Drawing Review (PTO-948)) 6. ☐ Interview Summary (PTO-413), Paper No./Mail Date							
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 	7. Examiner's Amendment/Comment							
Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. Examiner's Statement of Reasons for Allowance							
	9. [] Other							
	·							

Application/Control Number: 10/743,238 Page 2

Art Unit: 2872

REASONS FOR ALLOWANCE

Remark

This Office Action is in response to applicant's appeal brief filed on November 21, 2007, which
has been entered into the file.

• Claims 1-2, 4-11, 14 and 17 remain pending in this application.

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: in view of the arguments provided by the appeal brief and of the prior art references considered none has disclosed a *single cavity dual membrane Fabry Perot filter* that is comprised of *two membranes* each supports a *mirror structure* and each defines an *electrostatic cavity* between the membrane and a first and second substrate respectively. The first and second mirror structures are opposed each other to *define the single cavity*. The membranes are deflected with respect to the associated substrate by electrostatic forces.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR

Audrey Y. Chang, Ph.D. Primary Examiner Art Unit 2872

/Audrey Y. Chang/ Primary Examiner, Art Unit 2872

CANADA) or 571-272-1000.

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